

Amendments to the Drawings:

No drawings have been amended.

The Office Action alleges:

Figures (1-2) should be designated by a legend such as –Background Art—because only that which is old is illustrated. See MPEP § 608.02(g). (Office Action, p. 2).

Applicants respectfully disagree. Specifically, FIG. 1 and FIG. 2 are not referred to in the Background section of the patent application. Furthermore, the claim elements 104, 106 (for example), include patentable elements further detailed in FIGS. 3-12. Since FIG. 1 is a “general block diagram of a wireless communication system” and FIG. 2 is “an example mobile station and base station”, such “system” and “station” diagrams that include the further patentable elements further detailed in FIGS. 3-12 cannot be “Background Art” as alleged by in the Office Action. (Specification, [0012-0013]).

Accordingly, Applicants respectfully request the objections to the drawings be withdrawn.

REMARKS

The Office Action mailed July 26, 2006, has been received and reviewed. Claims 1-63 are pending in the application. Claims 1-63 stand rejected. Applicants have amended claims 7, 39 and 55-57, and respectfully request reconsideration of the application as amended herein.

Claim Objections

Claims 7, 27, 39, 41, 57 and 63 are objected to due to informalities in the claim language. Appropriate correction has been made.

Regarding claims 7 and 27, Applicants have respectively amended claim 7 and claim 27 as recommended to correct the omission of the word “and” and correct a typographical claim dependency error, as requested. Applicants respectfully request the objections be withdrawn.

Regarding claims 41, 57 and 63, Applicants have not amended the respective claims in view of the present claim objections. The Office Action alleges:

4. Claim 41 should read:
“~~receiving~~ **transmitting** a first ...”
“~~receiving~~ **transmitting** a second.”
Corrective action is required.
5. Claim 57 is objected to for the same reasons as claim 41
6. Claim 63 is objected to for the same reasons as claim 41
(Office Action, pp. 2-3)

Applicants respectfully point out that claims 41, 57 and 63 recite, in part:

... transmitting a packet;
... receiving a first signal ...;
... receiving a second signal

Applicants also respectfully point out that each of the “base stations” and “mobile stations” are configured to include both a transmitter for transmitting and a receiver for receiving. Therefore, such a method, means and media are capable of engaging in steps of both transmitting and receiving. Accordingly, Applicants respectfully request that the objections of claims 41, 57 and 63 be withdrawn.

Regarding claim 27, Applicants have not amended claim 27. The Office Action alleges:

Claim 27 is objected to under 37 CFR 1.75 as being a **substantial duplicate** of claim 25. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed

claim. See MPEP § 706.03(k). (Office Action, p. 3; emphasis added).
Applicants' claim 25 specifically recites:

25. The method of claim 24, wherein the first signal comprises one of a first plurality of values, one of the first plurality of values *indicating* an acknowledgment of correct decoding and *no rate control command*. (Emphasis added.)

Applicants' claim 27 specifically recites:

27. The method of claim 24, wherein the first signal comprises one of a first plurality of values, one of the first plurality of values *indicating* an acknowledgment of correct decoding and *a rate control command*. (Emphasis added.)

It is evident that Applicants' claim 25 and claim 27 are not "substantial duplicate[s]" as alleged, but are in fact opposites of each other. Therefore, Applicants respectfully request that objection to claim 27 be withdrawn.

35 U.S.C. § 101 Non-Statutory Subject Matter Rejection

Claims 1-5, 19, 21, 23, 40, 56, 58, 59, 60 and 62 stand rejected under 35 U.S.C. § 101.

Applicants respectfully traverse this rejection, as hereinafter set forth. The Office Action alleges:

Claims 1-5, 19, 21, 23, 40, 56, 58, 59, 60 and 62 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. Each limitation in claims 1, 19, 21, 23, 40, 56, 59, 60 and 62 comprises an abstract algorithm that can be carried by hand or computer software program element and is not tangibly embodied. Abstract algorithms are non-statutory.

For example, claim 1 recites:

- An apparatus, comprising:
 - a message generator for:
 - generating a first message comprising an acknowledgment indicator and a rate control indicator; and
 - generating a second message conditioned on the rate control indicator.

The Examiner notes that generating a first message and a second message are not tangible results. Where the result is what has been determined, generating, calculated, selected, decided, etc. without using what has been determined, generated, calculated, selected, decided, etc. in a disclosed practical application or at least making what has been determined, generated, calculated, selected, decided, etc. available for use through some form of conveyance (for example display, print, sound, transmission, etc.) or at least temporary storage somewhere is non-statutory. (Office Action, pp. 3-4).

Applicants respectfully disagree.

Regarding independent claims 1, 19 and 21, an apparatus, base station and wireless communication system respectively ***“comprising a message generator”*** having certain capabilities is clearly **not** “intangibly embodied” as alleged by the Office Action. Accordingly, Applicants respectfully request the rejections be withdrawn.

Regarding independent claims 23 and 60, a method and computer readable media operable to perform the method respectively including the steps of “generating a first signal ...; and conditionally generating a second signal ...” is clearly **not** “intangibly embodied” as alleged by the Office Action. Accordingly, Applicants respectfully request the rejections be withdrawn.

Regarding independent claims 40, 59 and 62, a method, a wireless system including means for, and a computer readable media operable to perform the steps respectively including the steps of “receiving a first signal ...; and conditionally receiving a second signal ...” is clearly **not** “intangibly embodied” as alleged by the Office Action. Accordingly, Applicants respectfully request the rejections be withdrawn.

Regarding independent claim 56, Applicants have amended claim 56 and respectfully request the rejection be withdrawn.

35 U.S.C. § 112 Claim Rejections

Claims 55-57 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Applicant have amended claims 55-57 into proper form and respectfully request the rejections be withdrawn.

35 U.S.C. § 102(e) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 7,069,038 to Hakkinen et al.

Claims 1, 6, 7, 10, 11 16, 17, 19-23, [40], [50], [54], 55-60 and 62 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hakkinen et al. (U.S. Patent No. 7,069,038). Applicants

respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants submit that the Hakkinen reference does not and cannot anticipate under 35 U.S.C. § 102 the presently claimed invention of independent claims 1, 6 (and dependent claim 7), 10 (and dependent claims 11, 16 and 17), 19-23, [40], [50], [54], 55-60 and 62, because the Hakkinen reference does not describe, either expressly or inherently, the identical inventions in as complete detail as are contained in the claims.

Regarding claims 1, 19, 21, the Office Action alleges:

In regard to claim 1, Hakkinen teaches:

-An apparatus, comprising:

-a message generator for:

-generating a first message comprising an acknowledgment indicator and a rate control indicator; and

-generating a second message conditioned on the rate control indicator.

(Note: claim 1 in Hakkinen) (Office Action, p. 5).

Claims 19, 21 and 56 are rejected for the same reasons as per claim 1. (Office Action, p. 7). **(Note: claim 56 is more properly grouped with claim 62 and is therefore argued along with claim 62.)**

Applicants respectfully disagree that the Hakkinen reference anticipates Applicants' invention as claimed in independent claims 1, 19, 21 and 56 which read, in part:

1. 19. 21. ... a message generator for:

generating a first message comprising an acknowledgment indicator and a *rate control indicator*; and

generating a second message *conditioned on the rate control indicator*.

(Emphasis added.)

In contrast, the Hakkinen reference lacks any disclosure regarding "rate control" or similar concepts. The Hakkinen reference generally discloses "controlling transmit power" and specifically, the Hakkinen reference, at the asserted citation, discloses:

1. A method for controlling transmit power in a mobile device in a network comprising:

detecting control information from a network node during a control channel sub-frame intended for a mobile device;

transmitting a signal in a slot allocated to feedback information in an uplink channel sub-frame immediately preceding an uplink channel sub-frame defined for an acknowledge (ACK) signal or a negative acknowledge (NACK) signal transmission for downlink channel data associated with the control information if no ACK signal or NACK signal was transmitted in the slot allocated to feedback information in the uplink channel sub-frame as a result of a feedback information process from a control channel sub-frame preceding the control channel sub-frame;

receiving the downlink channel data indicated by the control information at the mobile device and transmitting an ACK signal or NACK signal in accordance with appropriate receipt of the downlink channel data; and

determining if the control information intended for the mobile device *is detected in a next valid control channel sub-frame* following a sub-frame in which the control information intended for the mobile device was detected, *and if not, transmitting a signal in the slot* allocated to feedback information in the uplink channel sub-frame *corresponding to the next valid control channel sub-frame*. (Emphasis added.)

Clearly, the Hakkinen reference discloses transmitting control information, however, the control information is used to “control the transmit power” and not for use as “a rate indicator” as claimed by Applicants in independent claims 1, 19 and 21.

Therefore, since the Hakkinen reference does not disclose the identical invention in as complete detail as is contained in the claims, independent claims 1, 19 and 21 cannot be anticipated by the Hakkinen reference under 35 U.S.C. § 102. Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

Regarding claims 6, (claim 7 depending from claim 6), 23, 40, 54, 56, 58, 59, 60, and 62,
the Office Action alleges:

In regard to claim 6, Hakkinen teaches:

-An apparatus, comprising:

- a receiver for receiving a packet;
- a decoder for decoding the received packet; and
- (Note: FIG. 2 in Hakkinen)
- a message generator for:
 - generating a first signal comprising one of a first plurality of values, each value associated with an acknowledgment (ACK) or negative acknowledgment (NAK), and one or more of the values indicating a rate control command; and

(Note: Figures (3) and (5) in Hakkinen)

- conditionally generating a second signal comprising one of a second plurality of values corresponding to a respective plurality of rate control commands when the value of the first signal indicates a rate control command.

Note: F(4), reference signal (S5-S7) in Hakkinen). (Office Action, pp. 5-6).

Claims 23, 40, 54, 55, 57-60 and 62 are rejected for the same reasons as per claim 6. (Office Action, p. 7). **(Note: claims 55 and 57 are more properly grouped with claims 61 and 63 and are therefore argued along with claims 61 and 63.)**

Applicants respectfully disagree that the Hakkinen reference anticipates Applicants' invention as claimed in independent claims 6, 23, 40, 54, 56, 58, 59, 60, and 62 which read, in part:

... (generating/receiving) a first signal comprising ... one or more of the values indicating a rate control command; and
... conditionally (generating/receiving) a second signal comprising one of a second plurality of values corresponding to a respective plurality of rate control commands (Emphasis added.)

As stated and in contrast, the Hakkinen reference lacks any disclosure regarding "rate control" or similar concepts. The Hakkinen reference generally discloses "controlling transmit power" and specifically, the Hakkinen reference in FIGS. 2-5 discloses:

FIG. 2 shows a system diagram of the interface between a network node and mobile device according to an example embodiment of the present invention. (Hakkinen, col. 4, lines 12-14).

FIG. 3 shows a diagram of channels for improved uplink signal detection according to an example embodiment of the present invention. (Hakkinen, col. 4, lines 37-39).

FIG. 4 shows a flowchart of a process for improved uplink signal detection according to an example embodiment of the present invention. (Hakkinen, col. 5, lines 5-7).

FIG. 5 shows a diagram of channels for improved uplink signal detection according to another example embodiment of the present invention. (Hakkinen, col. 5, lines 48-50).

Clearly, the Hakkinen reference discloses transmitting control information, however, the control information is used to “control the transmit power” and not for use as “a rate indicator” as claimed by Applicants in independent claims 6, 23, 40, 54, 56, 58, 59, 60, and 62.

Therefore, since the Hakkinen reference does not disclose the identical invention in as complete detail as is contained in the claims, independent claims 6, 23, 40, 54, 56, 58, 59, 60, and 62 **cannot** be anticipated by the Hakkinen reference under 35 U.S.C. § 102. Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn. Claim 7 is dependent upon allowable claim 6. Accordingly, Applicants respectfully request the rejection of claim 7 be withdrawn.

Regarding claims 10 (and dependent claims 11, 16, 17), 20, 22, 50, the Office Action alleges:

In regard to claim 6, Hakkinen teaches:

-An apparatus, comprising:

-a receiver for receiving a first signal and conditionally receiving a second signal in accordance with a rate control indicator; and

(Note: FIG. 2 in Hakkinen)

-a message decoder for decoding the rate control indicator from the received first signal.

(Note: FIG. 7 in Hakkinen) (Office Action, pp. 6-7).

Claims 20 and 22 are rejected for the same reasons as per claim 10. (Office Action, p. 7).

Claim 50 is rejected for the same reasons as per claim 17. (Office Action, p. 7).

Applicants respectfully disagree that the Hakkinen reference anticipates Applicants' invention as claimed in independent claims 10, 20, 22 which read, in part:

... a receiver for receiving a first signal and conditionally receiving a second signal in accordance with a rate control indicator; and

a message decoder for decoding the rate control indicator from the received first signal. (Emphasis added.)

As stated and in contrast, the Hakkinen reference lacks any disclosure regarding “rate control” or similar concepts. The Hakkinen reference generally discloses “controlling transmit power” and specifically, the Hakkinen reference in FIGS. 2 and 7 discloses:

FIG. 2 shows a system diagram of the interface between a network node and mobile device according to an example embodiment of the present invention. (Hakkinen, col. 4, lines 12-14).

FIG. 7 shows a flowchart of a process for enabling or disabling improved uplink signal detection according to an example embodiment of the present invention. (Hakkinen, col. 6, lines 55-57).

Clearly, the Hakkinen reference discloses transmitting control information, however, the control information is used to “control the transmit power” and not for use as “a rate indicator” as claimed by Applicants in independent claims 10, 20 and 22.

Therefore, since the Hakkinen reference does not disclose the identical invention in as complete detail as is contained in the claims, independent claims 10, 20 and 22 cannot be anticipated by the Hakkinen reference under 35 U.S.C. § 102. Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn. Claims 11, 16 and 17 are dependent upon allowable claim 10. Accordingly, Applicants respectfully request the rejections of claims 11, 16 and 17 be withdrawn. Claim 50 is allowable as being rejected for the same reasons as claim 17. Accordingly, Applicants respectfully request the rejection of claim 50 be withdrawn.

Anticipation Rejection Based on U.S. Publication No. 2002/0172217 to Kadaba et al.

Claims 24-50, [55], [57], [61], and 63 stand rejected under 35 U.S.C. § 102(c) as being anticipated by Kadaba et al. (U.S. Publication No. 2002/0172217). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention

must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants submit that the Kadaba reference does not and cannot anticipate under 35 U.S.C. § 102 the presently claimed invention of independent claims 24 (and dependent claims 25-39), 40, 41 (and dependent claims 42-50), 55, 57 and 63, because the Kadaba reference does not describe, either expressly or inherently, the identical inventions in as complete detail as are contained in the claims.

Regarding independent claim 24 and claims 25-39 depending therefrom and independent claims 40, 55, 57, 61 and 63, the Office Action alleges:

In regard to claim 24, Kadaba teaches:

-A method for rate control, comprising:

-receiving a packet;

-decoding the packet;

-generating a first signal indicating whether the received packet was decoded correctly and indicating whether a rate control command will be issued; and

-generating a second signal comprising the rate control command when a rate control command is issued. (Note: section [0079] in Kadaba) (Office Action, p. 8).

Applicants respectfully disagree that the Kadaba reference anticipates Applicants' invention as claimed in independent claims 24, 40, 61 and 63 which reads, in part:

24. 40. 55. 57. 61. 63. ... *(generating/ receiving) a first signal* indicating whether the received packet was decoded correctly and *indicating whether a rate control command will be issued; and*

(generating/receiving) a second signal comprising the rate control command when a rate control command is issued. (Emphasis added.)

Applicants' invention as presently claimed, includes “*(generating/receiving) a first signal ... indicating whether a rate control command will be issued; and (generating/receiving) a second signal comprising a rate control command when a rate control command is issued.*” In contrast, the Kadaba reference lacks any disclosure regarding “*(generating/receiving) a first signal ... indicating whether a rate control command will be issued*” or similar concepts. The

Kadaba reference generally discloses that rate change bits are continuously transmitted with every acknowledgement bit. Specifically, the Kadaba reference at the specified citation recites:

[0079] 3. The Base Station(s) **acknowledge** on the F-UCACH (**using an acknowledgement bit**) **and indicate a change in rate** for subsequent transmissions on the F-UCACH (**in the same frame as the acknowledgement, using an additional bit**). The rate commands may be used to either (a) constrain autonomous operation to the lowest data rate, or (b) preclude autonomous transmissions by the wireless unit except for the transmission of the smallest data blocks at the lowest data rates. (Emphasis added.)

Clearly, the Kadaba reference discloses changing a transmission rate, however, the changing of a rate as disclosed in the Kadaba reference does not describe in as complete detail as is contained in Applicants' claim the method of rate control comprising ***"(generating/receiving) a first signal ... indicating whether a rate control command will be issued;*** and (generating/receiving) a second signal comprising a rate control command when a rate control command is issued", as claimed by Applicants.

Therefore, since the Kadaba reference does not disclose the identical invention in as complete detail as is contained in independent claims 24 (and claims 25-39 depending therefrom), 40, 55, 57, 61 and 63, Applicants' invention as presently claimed cannot be anticipated by the Kadaba reference under 35 U.S.C. § 102. Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

Regarding independent claim 41 and claims 42-50 depending therefrom, the Office Action is silent regarding a specific rejection. However, Applicants' invention as claimed in independent claim 41 recites:

41. A method for rate control, comprising:
transmitting a packet;
receiving a first signal indicating whether the received packet was decoded correctly and ***indicating whether a rate control command will be issued;***
and
receiving a second signal comprising the rate control command when a rate control command is issued. (Emphasis added.)

Applicants' invention as presently claimed, includes ***“receiving a first signal ... indicating whether a rate control command will be issued;”*** and receiving a second signal comprising a rate control command when a rate control command is issued.” In contrast, the Kadaba reference lacks any disclosure regarding ***“receiving a first signal ... indicating whether a rate control command will be issued”*** or similar concepts. The Kadaba reference generally discloses that rate change bits are continuously transmitted with every acknowledgement bit. Specifically, the Kadaba reference at the specified citation recites:

[0079] 3. The Base Station(s) ***acknowledge*** on the F-UCACH (***using an acknowledgement bit***) ***and indicate a change in rate*** for subsequent transmissions on the F-UCACH (***in the same frame as the acknowledgement, using an additional bit***). The rate commands may be used to either (a) constrain autonomous operation to the lowest data rate, or (b) preclude autonomous transmissions by the wireless unit except for the transmission of the smallest data blocks at the lowest data rates. (Emphasis added.)

Clearly, the Kadaba reference discloses changing a transmission rate, however, the changing of a rate as disclosed in the Kadaba reference does not describe in as complete detail as is contained in Applicants' claim the method of rate control comprising ***“receiving a first signal ... indicating whether a rate control command will be issued;”*** and receiving a second signal comprising a rate control command when a rate control command is issued”, as claimed by Applicants.

Therefore, since the Kadaba reference does not disclose the identical invention in as complete detail as is contained in independent claims 41 (and claims 42-50 depending therefrom), 40, 61 and 63, Applicants' invention as presently claimed **cannot** be anticipated by the Kadaba reference under 35 U.S.C. § 102. Accordingly, such claims are allowable over the cited prior art and Applicants respectfully request that such rejections be withdrawn.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 7,069,038 to Hakkinen et al. as applied to claim 1 above, and further in view of Applicant Admitted Prior Art (AAPA)

Claims 2-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hakkinen et al. (U.S. Patent No. 7,069,038) as applied to claim 1 above, and further in view of Applicant Admitted Prior Art (AAPA). Applicants respectfully traverse this rejection, as hereinafter set forth.

The nonobviousness of independent claim 1 precludes a rejection of claims 2-5 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103 rejection to claims 2-5 depending from nonobvious independent claim 1.

Obviousness Rejection Based on U.S. Patent No. 7,069,038 to Hakkinen et al. as applied to claim 6 above, and further in view of U.S. Publication No. 2002/0172217 to Kadaba et al.

Claims 8, 9, 12-15, 18, 51 and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hakkinen et al. (U.S. Publication No. 2002/0172217) as applied to claim 6 above, and further in view of Kadaba et al. (U.S. Publication No. 2002/0172217). Applicants respectfully traverse this rejection, as hereinafter set forth.

The nonobviousness of independent claim 6 precludes a rejection of claims 8-9 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103 rejection to claims 8-9 depending from nonobvious independent claim 6.

The nonobviousness of independent claim 41 precludes a rejection of claims 51 and 52 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103 rejection to claims 51 and 52 depending from nonobvious independent claim 41.

CONCLUSION

Claims 1-63 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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